MOEJ/GEC
New Mechanism FS Programme
focusing on Bilateral Offset Credit Mechanism (BOCM)

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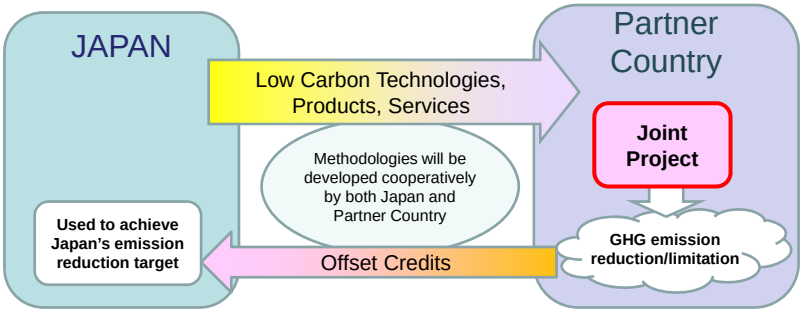
Bilateral Offset Credit Mechanism (BOCM)

Purposes of the Bilateral Offset Credit Mechanism (BOCM)

- Contribute to the ultimate objective of the UNFCCC through promotion of mitigation activities globally.
- Facilitate the bilateral cooperation in the field of climate change in such a way that best suits each country's national circumstances.
- Contribute to the sustainable development of developing countries.
- Appropriately evaluate the contribution to GHG emission reductions or removals.
- Facilitate diffusion of low carbon technologies, products and services and enhance capabilities to utilise them.



Source: Ministry of the Environment

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Initiatives for the Development of New Mechanisms
under the Ministry of the Environment, Japan (MOEJ)

(1) Feasibility Studies (FS) for potential BOCM projects/activities **(GEC)**
- Called for proposals from Japanese entities for potential BOCM projects/activities, in order to acquire knowledge and experience for designing and implementing the BOCM.
- 29 projects were selected for FY2011, increased from three in FY2010.

To establish the enabling environment for BOCM projects/activities in developing countries

(2) Information platform for the BOCM **(OECC)**
- New Mechanisms Information Platform website was established to provide the latest movements and information on the BOCM.

(3) Capacity Building (CB) for the BOCM **(IGES, etc.)**
- Consultations with government officials and private firms in developing countries for capacity building for new market mechanism implementation and MRV application (incl. development of MRV methodologies)

Source: modifications based on the Ministry of the Environment

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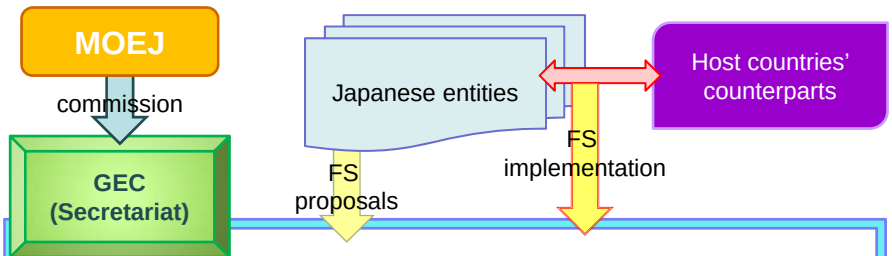
FS Programme on BOCM



- Invite public proposals on FS from Japanese entities (private companies and NGO/NPOs)
- Select the proposals to be officially adopted as qualified FS (funded to implement FS)
- Provide advice and supervision to the qualified FS
  - Through an expert committee and task force teams
- Consult with host countries to promote cooperative relationships
  - Through meetings with host countries' governments and stakeholders
- Outreach the FS results
  - Through GEC website, and UNFCCC Side Events, etc.

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Purposes of FS on BOCM

- To input to the consideration of schematic design of BOCM:
  - Identification of projects/activities appropriately suitable to host countries' specific needs and circumstances
  - Evaluation of Japan's contribution to global GHG mitigation through the dissemination and application of Japanese low-carbon technologies
  - Breakthrough of CDM difficulties where hurdles tough to overcome exist
- To explore ways for private entities to be able to really implement projects/activities:
  → Private entities (potential project proponents) implement FS where reasonable enabling environments and appropriate (not overburdened) rules are pursued based on their survey results.

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Expected Results of FS on BOCM

- Demonstration of GHG mitigation effect caused by the proposed project/activity
- Confirmation that the project/activity satisfies host country's needs and specific circumstances, including related policies and strategies
- Identification of reference scenario
- Establishment of monitoring system/plan
- Consideration of calculation protocol of GHG emissions for reference scenario and project/activity scenario
  → Estimated GHG emission reductions (quantified)
- Proposed method for MRV of GHG emission reduction effect
- Evaluation of project/activity's contribution to sustainable development in host country
  - Securement of environmental integrity

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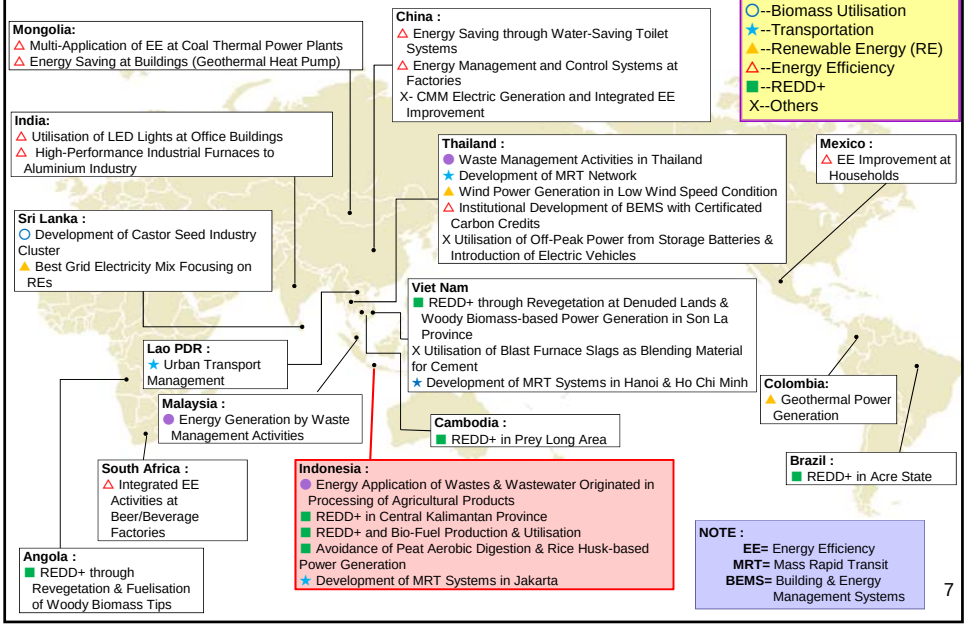
FS on BOCM ~FY2011~



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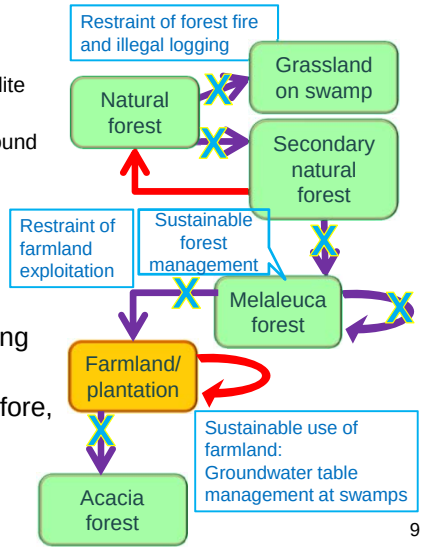
BOCM FS 2011 – in Indonesia

Category		BOCM Project/Activity	Research Entity
REDD+		REDD+ in Central Kalimantan Province	Mitsubishi UFJ Research & Consulting
		REDD+ and Bio-Fuel Production and Utilisation in Gorontalo Province	Kanematsu Corporation
	Peatland Management	Avoidance of Peat Aerobic Degradation by Peatland Rewetting and Rice Husk-based Power Generation Associated with Rice Production Increase in Jambi Province	Shimizu Corporation
Agricultural Waste Management		Energy Application of Wastes and Wastewater Originated in Processing of Agricultural Products	Chugai Technos Corporation
Transportation		Development of Mass Rapid Transit (MRT) Systems in Jakarta	Mitsubishi Research Institute

Tentative Results of BOCM FS (1)

REDD+ in Central Kalimantan Province

- **Reference Level:**
  - (1) Identification of **area size** with **land use categorisation** ← Analysis of Landsat satellite imagery.
  - (2) C stocks per ha: aboveground and belowground biomass, dead wood, litter, and soil
- **Estimated Emission Reductions:**
  17Mt-CO2/20 years
- **Safeguarding:** Provide alternative livelihood to palm oil plantation
  → Melaleuca for chipboard manufacturing
  * Melaleuca forest is naturally revegetated in smawp lands. Therefore, keeping Melaleuca forest prevents CO2 emissions resulted from rapid aerobic degradation of peat due to drying (lowering groundwater table)



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Tentative Results of BOCM FS (2)

REDD+ and Bio-Fuel Production and Utilisation in Gorontalo Province

- **Project outline:**
  Both a REDD+ project with plantation at deteriorated forest and fallowed land areas and a bio-fuel project with plant oil will be implemented as a package in Boalemo Prefecture, Gorontalo Province, to reduce GHG emissions. The package will produce synergetic effect on forest preservation with safeguard means by the bio-fuel project.
- **Estimated Emission Reductions (REDD+): 845,152t-CO2/20 years**
  ← based on the deforestation rate (-0.68%/yr calculated from comparison between 2000 and 2010)
- **Safeguarding:** Oil-plant (coconut) cultivation and bio-fuel production, as an alternative livelihood for local farmers.
  → Bio-fuel will be consumed locally for community-based mini power generations.
  ➔ Bio-fuel consumption for power generation can also contribute to the GHG reductions.

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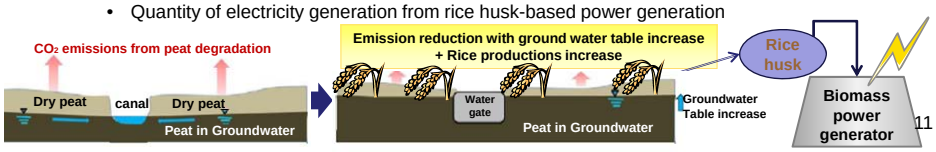
Tentative Results of BOCM FS (3)

Avoidance of Peat Aerobic Degradation by Peatland Rewetting and Rice Husk-based Power Generation Associated with Rice Production Increase in Jambi Province

- **Reference Scenarios:**
  - ➢ Peat rewetting: BaU (= Drainage is continued, and water-gate management is not operated.)
  - ➢ Rice husk-based biomass power generation: BaU (=Biomass power generations do not occur under the current low-level productivity at paddy fields.)
- **Monitoring:**
  - – For reference scenario:
    - Depth, property, depression level, and density of peat
      ➔ **Identification of quantity of peat storage (R)**
    - Groundwater table per sample plot (← calibrated through draft groundwater level index provided from satellite data)
  - – For project scenario:
    - Groundwater table (+ restoration level), and depression level of peat
    - Quantity of electricity generation from rice husk-based power generation

GHG emission reductions = Carbon Loss
(= 21 – 69 x (ave. water depth)



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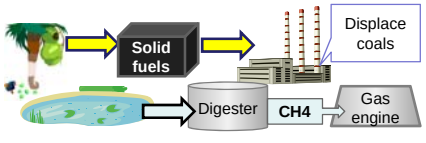
Tentative Results of BOCM FS (4)

Energy Application of Wastes and Wastewater Originated in Processing of Agricultural Products

- **Project overview:**

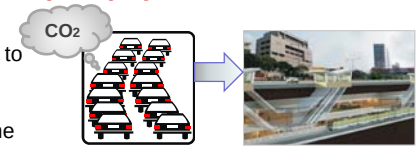
  Agricultural wastes derived from factory processing will be utlised as energy sources:
  - ➢ Solid agricultural wastes from palm oil industry (EFBs and palm leaves) and sugar factories (bagasse) will be fuelised (in pellets or powders) to displace coals at thermal power plants or at mini-power plants at community level.
  - ➢ Wastewater from palm oil mills (POME) and rubber factories will be input to digesters to generate methane gas to utilised at gas engine power generators.
  - ➔ Multi-type waste/wastewater is integrated into one project under the most suitable combination (such as close-distance conditions)
- **MRV method:**
  - ➢ MRV method for GHG emission reduction effects resulted from the BOCM project is proposed to link to the **Indonesian Sustainable Palm Oil (ISPO) standards**
    - Project proponents' workload for GHG monitoring should be reduced when the Indonesian palm oil mills are obliged to comply with the ISPO standard.
    - Future challenge is that the ISPO should be based on ISO-14065 for verification procedure for GHG emissions.



Tentative Results of BOCM FS (5)

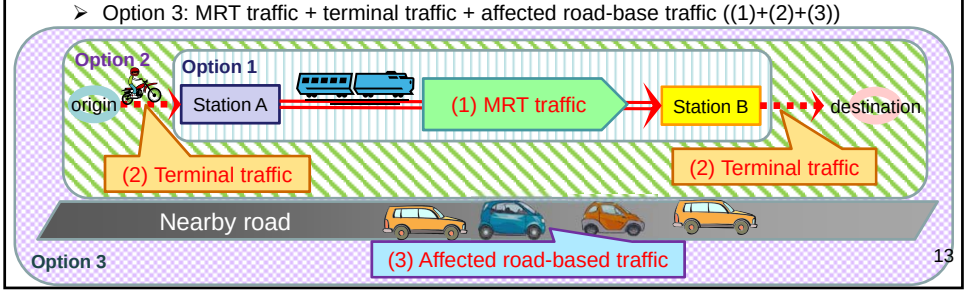
Development of Mass Rapid Transit (MRT) System in Jakarta

- **Project overview:**
  Mass Rapid Transit (MRT) system are planned to be introduced in Jakarta. The MRT system will lead to the modal shift from the current road-oriented transport to mass public transport in the mega city to reduce GHG emissions.



- **Project boundary:**
  - Option 1: MRT traffic (only (1))
  - Option 2: MRT traffic + terminal traffic ((1)+(2))
  - Option 3: MRT traffic + terminal traffic + affected road-base traffic ((1)+(2)+(3))

Calculation of GHG:
Trips (person-km) x CO2 EF (tCO2/person-km)



Final Reports of BOCM FS 2011

- BOCM FS of JFY2011 will complete on 2nd March 2012.
  - ➔ FS final reports will be available through the GEC website, at http://gec.jp.
- Some FS would continue their studies in JFY2012, in order to
  - elaborate the results, including the accuracy of GHG emission reductions;
  - develop **BOCM methodologies** applicable to the BOCM projects/activities.

Thank you very much for your attention!

DISCLAIMER:

Please note that the tentative results of BOCM FS shown in this presentation are not based on official reports submitted from FS entities, but created by the author based on the tentative reports submitted on January 2012 from FS entities to the FS progamme secretariat.

*Please **DO NOT** cite any contents of the tentative reports in this presentation.*

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